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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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|-----------------|-------------|----------------------|---------------------|------------------|

10/567,566

02/08/2006

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EXAMINER

JENKINS, JERMAINE L

ART UNIT

PAPER NUMBER

2855

MAIL DATE

DELIVERY MODE

08/02/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/567,566

**Applicant(s)**

MORINAGA, HIROSHI

**Examiner**

Jermaine Jenkins

**Art Unit**

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-15 is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Schick (7,158,018).

In regards to claim 1, Schick teaches a tire sensing apparatus having at least two input detection means (38, i.e. sensor units) for detecting an input from the road which acts on a tire tread portion (Column 4, lines 3-30), which are buried in a tread rubber on the outer side in the radial direction of a tire belt layer (10) (The sensor units (38) forms the sensor net (24) which is disposed on the outer side on the bottom portion of the tire belt (10). The sensor net is being read as in a radial direction of the belt by being either disposed on the top or the bottom of the belt; Column 7, lines 15-26 & lines 35-38; See Figure 1 & Claims 1 & 4).

With respect to claim 2, Schick teaches wherein two of the tire input detection means (38) are arranged at linearly symmetrical positions which are

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equally distant in the axial direction from the center in the axial direction of the tire (See Figures 3 & 5).

With respect to claim 3, Schick teaches wherein the tire input detection means (38) are arranged on the inner side in the radial direction of a tread block contact portion (See Figure 1).

With respect to claim 4, Schick teaches wherein the tire input detection means (38) is pressure sensors whose detection direction is a tire radial direction (Column 4, lines 3-30).

With respect to claim 5, Schick teaches wherein the tire input detection means is pressure sensors whose detection direction is a tire circumferential direction (Column 4, lines 3-30; See Figure 5).

### ***Allowable Subject Matter***

3. Claims 6-15 are allowed.
4. The following is a statement of reasons for the indication of allowable subject matter: The prior art does not disclose or suggest a tire condition estimating method comprising detecting the contact lengths of at least two locations of a tire tread portion by using wheel speed measuring means and estimating the conditions of a running tire based on the detected contact lengths.

The prior art also does not disclose or suggest a tire condition estimating method comprising the steps of monitoring the ratio of tire input detecting values at linearly symmetrical positions which are equally distant in the axial direction

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from the center in the tire axial direction of the tire tread portion obtained by using a sensor-incorporating tire and estimating that the unsymmetrical wear of the tire proceeds when the ratio exceeds a preset threshold value for a predetermined time or longer.

### ***Conclusion***

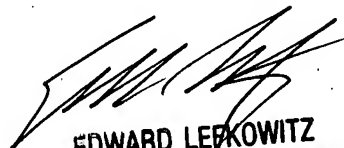
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermaine Jenkins whose telephone number is 571-272-2179. The examiner can normally be reached on Monday-Friday 9am-530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jermaine Jenkins  
A.U. 2855



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